

CLAIMS

What is claimed is:

- 1 1. A method, comprising:
 - 2 receiving a request for an information object at an anycast network address; and
 - 3 resolving the request to a corresponding unicast address for the information object.
- 1 2. The method of claim 1 further comprising returning the unicast address for the information object.
- 1 3. The method of claim 1 wherein the request is received at an information object repository selected without regard as to whether the information object is actually stored at the information object repository.
- 1 4. The method of claims 3 further comprising instructing the selected information object repository to obtain a copy of the information object.
- 1 5. The method of claim 3 the information object repository is selected according to specified performance metrics.
- 1 6. The method of claim 5 wherein the performance metrics comprise one or more of: average delay from the selected information object repository to a source of the request, average processing delay at the selected information object repository, reliability of a path from the selected information object repository, available bandwidth in said path, and loads on the selected information object repository.

- 1 7. An information object repository configured to resolve a network layer anycast address to a
2 network layer unicast address in response to a request for an information object at the network
3 layer anycast address.
- 4 8. The information object repository of claim 7 being further configured to resolve the network
5 layer anycast address by transmitting a request for the network layer unicast address and awaiting a
6 response thereto.
- 1 9. The information object repository of claim 8 being further configured to return a failure
2 message to a source of the request for the information object if the response to the request for the
3 network layer unicast address is not received within a timeout period.
- 1 10. A network, comprising:
2 at least one client configured to transmit a request for an information object using a network
3 layer anycast address; and
4 an information object repository configured to receive the request for the information
5 object and to resolve the network layer anycast address into a network layer unicast address.
- 1 11. The network of claim 10 wherein the information object repository is further configured to
2 resolve the network layer anycast address by transmitting a request for the network layer unicast
3 address and awaiting a response thereto.
- 1 12. The network of claim 11 wherein the information object repository is further configured to
2 return a failure message to the client if the response to the request for the network layer unicast
3 address is not received within a timeout period.
- 4 13. The network of claim 12 wherein the request for the network layer unicast address comprises
5 a single IP packet that includes the network layer anycast address.

1 14. The network of claim 13 wherein the response to the request for the network layer unicast
2 address comprises a single IP packet that includes the network layer unicast address.

1 15. The network of claim 14 wherein the response to the request for the network layer unicast
2 address is returned by a host having the network layer unicast address.

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